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Walden University

College of Health Sciences

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Tetsuya Umebayashi

has been found to be complete and satisfactory in all respects,
and that any and all revisions required by
the review committee have been made.

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Walden University

2015

Abstract

Improving Attitudes and Perceptions About Teamwork
Among Health Care Professionals with a TeamSTEPPS Approach

by

Tetsuya Umebayashi
MSN, BSN, RN

Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Nursing Practice

Walden University
May 2015

Abstract

Effective communication among health care professionals is essential for the provision of quality patient-centered care; however, effective communication practices are not guided by evidence-based models in many health care organizations. The Joint Commission has estimated that most sentinel events are induced by miscommunication among health care professionals. The problem addressed in this project was poor and ineffective teamwork skills and general communication among health care professionals and a lack of formal models to guide effective communication among the healthcare team. The purpose of the project was to adapt TeamSTEPPS to an institutional context in order to improve health care team members' attitudes and perceptions about teamwork and create organizational expectations that encourage open communication among health care professionals. The outcomes relevant to this project include peer evaluation, self-evaluation, and HCAHPS scores. Development and planning was informed by a project team of interdisciplinary stakeholders ($n = 6$) who employed peer-reviewed literature and professional expertise to develop several products that adapt TeamSTEPPS to the institutional context. The stages of change theory was used to develop the products. The products include an implementation plan, an evaluation plan, and a sustainment plan. The context-specific implementation plan was produced to guide the institution in implementing the adapted program, and an evaluation plan was developed to inform evaluation of changes in the health care team and HCAHPS outcomes. A sustainment plan was also developed for long-term use in the institution. Improving attitudes and perceptions about teamwork and promoting effective communication is a first step in improving quality in hospitals to a wider audience, thus increasing the overall quality of care and facilitating social change.

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Dedication

I would like to dedicate this project to my parents, sons Thore and Alberto, sisters, and aunt. There is no doubt that without their encouragement and support I would not have been able to complete this project.

Acknowledgments

I would like to thank many individuals who helped me during this project. I am especially thankful to my preceptor, Dr. Chad Vickers, for his full support during my project. Also, I would like to thank my professor Dr. Stoerm Anderson for his crucial advices and support, and all of my classmates for their encouragement, feedbacks, and suggestions.

I would like also to thank Dr. Nancy Moss and Dr. Patti Urso for agreeing to be on my project committee and reviewing my project.

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Section 1: Overview of the Evidence-Based Project

Background

Effective communication is essential to coordinate a health care team and promote higher quality of care. Without it, it is difficult to accomplish the common goal of promoting safe, quality care for patients. Poor communication can result from negative attitudes and perceptions about teamwork among health care professionals. In addition, it is important to create an environment where patients and family members feel comfortable communicating with health care professionals.

Carriere and Bourque (2009) discussed that there is a significant positive correlation among improvements in communication, patient outcomes, and nursing job satisfaction. But according to The Joint Commission (2012), clinical issues related to poor communication remain unsolved in many health care organizations. The Joint Commission announced that in the last 5 years, more than 60% of sentinel events were induced by miscommunication among healthcare professions, and 80% of the miscommunication occurred during the hand-off communication (2012).

In 2006, as the result of significant numbers of sentinel events reported to The Joint Commission, the Agency for Healthcare Research and Quality (AHRQ) in collaboration with the Department of Defense, developed team strategies and tools to enhance performance and patient safety. The resulting program, called TeamSTEPPS, was to become the national standard in health care. The TeamSTEPPS program has been implemented nationwide since 2006 and has been recognized as one of the crucial trainings for developing teamwork and communication skills (AHRQ, n.d.). It is important to identify the root causes of the poor communication in health care organizations and to implement the Team STEPPS approach to solve them.

Problem Statement

No matter how knowledgeable health care professionals might be, without effective and efficient communication among them, patient care often suffers. Nurses and other health care professionals have recognized that ineffective communication is one of the major risk factors for patient safety and quality improvement (The Joint Commission, 2012). Improving attitudes and perceptions about teamwork and creating environments that encourage conversations (a) increase the odds that vital issues will be discussed and (b) provide opportunities for resolution (Ulrich, 2007). Patient care has been suffering because of negative attitudes and perceptions about teamwork. Various attitudes can lower morale in a team and decrease the effectiveness of communication among its members. Researchers and clinicians have consistently demonstrated and voiced the importance of promoting effective communication, but their recommendations have been poorly implemented in many healthcare organizations (2007). According to The Joint Commission (2007) this communication issue is seen in major health care organizations. Improved communication has been one of the Joint Commission's National Patient Safety Goals. The Joint Commission required healthcare organizations to establish a method, such as hand-off communication tools, that would afford providers an opportunity to ask and respond to questions and thus help eliminate communication errors. At some hospitals and clinics there is no communication tool available that ensures messages are clear and definite under any circumstances (AHRQ, n.d.). It is important to create an environment that promotes better communication among health care professionals in health care organizations. Improving attitudes and perceptions about teamwork is a first step in promoting safe, quality care.

The Hospital Consumer Assessment of Health care Providers and Systems (HCAHPS) evaluated the issue of communication in health care organizations. The HCAHPS survey offered

valid comparisons across all health care facilities by creating a standardized measuring tool for collecting or publishing patients' perspectives on care (Huppertz & Carlson, 2010). A website called Hospital Compare, developed by Center for Medicare and Medicaid Services (CMS), revealed significant issues with patients' satisfaction in a major health care organization in comparison with one of the national average (see Table 1). The sample organization scored lower on seven important hospital quality indicators related to communication. Based on the HCAHPS result, the issues for communication among health care professions and patients are one of the major reasons for poor patient satisfaction in major health care organizations.

Many factors contribute to poor communication at hospitals and clinics (The Joint Commission, 2012). Their unique environment may be one of the factors contributing to the communication issues. Major health care organizations and clinics often share a building with multiple practices. For example, an outpatient clinic of a major health care organization shares a building with family practice medicine, behavioral health, and urology. This situation is commonly seen in major health care facilities as a cost-cutting measure.

The problem addressed in this project was the negative impact on patient outcomes of poor and ineffective communication and teamwork skills among health care professionals. Effective and clear communication is vital in any health care team. The Joint Commission suggested that poor communication contributes to nearly 65% of sentinel events, surpassing other commonly identified issues, such as patient assessment and procedure compliance (2012). The mitigation and prevention of sentinel events and of patient injury and harm must be promoted by enhancing communication and teamwork skills.

Purpose Statement

The purpose of this project was to adapt the TeamSTEPPS approach to the institutional context in order to produce highly effective medical teams that achieve the safest patient care. As the major part of the adaptation process, hand-off communications plans and tools were developed to promote communication among health care professionals. Adaptation of the approach is significant in that it may produce more effective and efficient teams when the culture of each health care organization is considered in the process of implementation of the approach. There are many competing variables in the culture of an organization. To produce the desired improvements in the quality of patient care, the organizational culture must be understood.

Significance/Relevance to Practice

Using TeamSTEPPS approach was expected to improve attitudes and perceptions about teamwork among health care professionals and create environments that open and encourage communication. The impact of the TeamSTEPPS approach was seen as significant because health care professionals in the health care organization would be actively involved in the process of change. The participants in the implementation of TeamSTEPPS approach were registered nurses, a nurse practitioner, physicians, residents, certified nurse assistants, other health care professionals, such as respiratory therapists and radiology technicians, social workers, and secretaries. Understanding common practice problems/issues related to poor communication was essential to implement the new approaches to promote effective communication among health care professionals. One of the most important components of the process was understanding what practices are employed in the current practice. Without understanding the roles of other health care professionals, the process would be a significant challenge. In the last 5 years, completing certain tasks became more complicated and higher acuity of care has been

increasingly delivered in clinics (Gordon & Sanghvi, 2013). Because of the new health care reform (The White House, n.d.), this trend was expected to accelerate in the near future. Often completing high acuity and complex tasks requires involvement with others health care professionals. To complete the tasks more effectively and more productively as a team, it was important that each health care professional understood the roles of the others. This would enable them to support each other more efficiently and effectively (see Figure 1). It was necessary to understand the roles of health care professionals and get input from the stakeholders to involve them fully in the process of the implementation and to address their needs with respect to the change.

Lack of motivation and involvement in the change process may cause implementation to fail. According to Koh, Manias, Hutchinson, Donath, & Johnston (2008), the greatest barriers to implementation of change reported included: (a) lack of knowledge and education and motivation of staff and (b) lack of change champions' availability of support staff. Lack of the motivation of staff members is one of major barriers to implement the TeamSTEPPS approach. The staff members may have been doing routine practices for a long time. It would be a challenge to change practices when they are very comfortable with what they have been doing even though they know the practices are not effective

Any change can take long time and thus requires patience. It is crucial to set the timeline for the change and to communicate with all stakeholders to keep them updated regularly about the plan. Without effective communication, the process of change may induce uncertainty in stakeholders. Involving all stakeholders as much as possible through face-to-face meetings is vital during the planning. Individuals need time for critical reflection and discuss their attitudes and beliefs in the change process (Maich, Ploeg, Jack, & Dobbins, 2010). The meetings

themselves can be a source of stress if the stakeholders, who may have busy schedules, (Brown, Lewis, Ellis, Stewart, Freeman, & Kasperski, 2009) are not allowed to be involved in deciding the schedule.

Project Goal and Outcomes

The goal of the project was to inform the development of a program that adapts the TeamSTEPPS approach to the institution. The outcome was the hand-off a communications program among health care professionals that was developed based on needs of each health care professional and the culture of the department. The detailed action plans for implementation and evaluation were fully developed. The goal for the overall TeamSTEPPS implementation was to improve individuals' attitudes and perceptions about teamwork and to create environments that open and encourage communication among health care professions.

Evidence-based Significance of the Project

U.S. health care costs are continuously rising and the issue has been a significant problem in the United States (Health Care Cost Institute, 2012). This change in health care has had an enormous effect on the quality and delivery of care. It is essential for nurse leaders to understand the concepts of health care economics and how economics impacts the quality of care. Integrating the HCHAPS surveys into the pay-for-performance plans is the outcome of poor quality of care in health care organizations. Medicare will provide some incentives based on their patient satisfaction results during hospitalization. Medicare can withhold 1% of its payments to hospitals, putting those funds into a pool to be distributed as bonuses to hospitals that score above average on several measures (Rau, 2011). Without adequate funding, hospitals and clinics will face significant challenges in providing the highest quality of care. To cut this negative

cycle , improving attitudes and perceptions about teamwork among health care professionals and promoting effective communication with TeamSTEPPS approach would be essential.

When the health care system is incompetent and unsafe, nurses must act to protect patients and the public. Nurses always assume responsibility and accountability for individual nursing actions. Without the implementation of practices guided by research evidence, the nursing actions may not be safe and effective. Applying evidence to practices is vital to protect the patients, the public, and the nurses. Also, evidence-based practices will be used in response to (a) a specific patient's preferences and requests, (b) the clinical environment, and (c) the expertise of the clinician. The translation of evidence into practices will promote culturally competent care and culturally competent and culturally sensitive care improves outcomes in vulnerable populations (Giger & Davidhizar, 2007). Culturally competent care is fully acknowledged in the TeamSTEPPS approach in order to improve cultural and language competence in patient safety. AHRQ has developed a component that focuses on individuals with English as a Second Language (ESL). The module consists of a guide with information on how to provide research around medical errors with ESL individuals and strategies for addressing the challenges of working with them (AHRQ, 2013).

There are some health care issues that need immediate change (AHRQ, n.d.). These issues indicate that current policy is not effective enough to promote quality and safety practices in the health care organization. The new alternative policy and guidelines must be developed and initiated to address and manage current health care problems. Translation of evidence into policy is not easy (White & Dedley-Brown, 2012). Poor quality of research, inadequate policy analysis, lack of timeliness, and lack of leadership may translate into wrong policy implementation (White & Dedley-Brown, 2012). It is essential for nurse leaders, other health care professionals, and

other stakeholders to remove the unnecessary barriers that are preventing the translation of evidence into practices (White & Dedley-Brown, 2012). Nurse leaders must be active participants to champion the enhancement of evidence-based practices in health care. Nurses are active participants in the formation, implementation, and evaluation of public policy directed at improving the health of individuals, families, groups, and communities (Fawcett & Russell, 2005). Implementing a new guideline, such as the TeamSTEPPS approach, will be a significant challenge without the collaboration with stakeholders.

Social changes are essential to meet the needs of humans when current systems are not functioning. Data shows that current communication methods among health care professionals are not functioning (AHRQ, 2013). There are disparities in access to health care due to lack of insurance coverage, legal barriers, lack of financial resources, poor health literacy, and lack of diversity in the healthcare workforce. The National Network of Libraries of Medicine defined Health Literacy as "the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions" (n.d.). A mid-sized hospital in the Dallas–Fort Worth area serves that disadvantaged population. Poor health literacy can be more pronounced in this population because of lack of communication among healthcare professionals and patients. Based on a HCAHPS result (see Table 1), only 60% of patients hospitalized in the healthcare organization were taught about a given medication before it was administered. Without effective and efficient communication between health care professionals and patients, patients with a poor understanding of good health may suffer more from their existing medical conditions.

Definitions of Terms

Hand-off communication tools allow healthcare professions to exchange necessary patient information to ensure patient safety and continuity of care.

The HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) survey is: the first national, standardized, publicly reported survey of patients' perspectives of hospital care. While many hospitals have collected information on patient satisfaction for their own internal use, until HCAHPS there was no national standard for collecting and publicly reporting information about patient experience of care that allowed valid comparisons to be made across hospitals locally, regionally and nationally. The HCAHPS survey asks discharged patients 27 questions about their recent hospital stay. The survey contains 18 core questions about critical aspects of patients' hospital experiences, communication with nurses and doctors, the responsiveness of hospital staff, the cleanliness and quietness of the hospital environment, pain management, communication about medicines, discharge information, overall rating of hospital, and would they recommend the hospital (Centers for Medicare & Medicaid Services, n.d.).

Hospital compare has information about the quality of care at over 4,000 Medicare-certified hospitals across the country. It is useful to find hospitals and compare the quality of their care (Centers for Medicare & Medicaid Services, n.d.).

The Joint Commission is an independent, not-for-profit organization. The Joint Commission accredits and certifies more than 20,000 health care organizations and programs in the United States (The Joint Commission, 2012).

Kardex is a card indexing system used to provide a synopsis of each patient on a unit, including name, diagnosis, treatments, medications, diet, and other pertinent information that is written in pencil so that it could be updated easily (Steffen, 2009).

National patient safety goals are developed by the Joint Commission to help accredited organizations address specific areas of concerns in regards to patient safety.

TeamSTEPPS is a teamwork system designed for health care professionals that is:

(a) a powerful solution to improving patient safety within an organization; (b) an evidence-based teamwork system to improve communication and teamwork skills among health care professionals; (c) a source for ready-to-use materials and a training curriculum to successfully integrate teamwork principles into all areas of a health care system; (d) scientifically rooted in more than 20 years of research and lessons from the application of teamwork principles; and (e) developed by DoD's Patient Safety Program in collaboration with the Agency for Healthcare Research and Quality (AHRQ, n.d.).

Sentinel Event is an unexpected occurrence involving death or serious physical or psychological injury, or the risk thereof (The Joint Commission, n.d.).

Assumptions of the Project

The following assumptions were made for the purpose of this project:

1. Improved communication and teamwork skills will decrease sentinel events and promote patients' satisfaction.
2. The TeamSTEPPS approach will improve communication and teamwork skills among health care professionals.

Limitations of the Project

The limitations of the project are the followings:

3. The project may be limited to a couple departments in the mid-sized healthcare organization.
4. The outcome of HCAHPS is not generalizable.
5. The project will be developed without institutional support.

Summary

The problem addressed in this project was the negative impact on patient outcomes of poor and ineffective communication and teamwork skills among health care professionals. Effective and clear communication is vital in any health care team. The issue of communication among health care professionals is significant. To promote effective communication, developing and implementing an evidence-based new practice guideline are necessary. The purpose of this project was to adapt the TeamSTEPPS approach to the institutional context to produce highly effective medical teams that achieve the safest patient care. The goal of the project is to inform development of a program that adapts TeamSTEPPS approaches to the institution. The implementation of the adapted TeamSTEPPS approach based on the needs and culture of a health care organization to promote effective communications was a first step to improved quality of care in hospitals and clinics. The implementation of the TeamSTEPPS approach, including, for example, hand-off communication tools, could serve as a new standard of care to improve communication skills.

Section 2: Review of Scholarly Evidence

Introduction

The purpose of this project was to adapt the TeamSTEPPS approach to the institutional context to produce highly effective medical teams that achieve the safest patient care. The purpose of this literature review is to create familiarity with current research regarding TeamSTEPPS approach and to identify the effectiveness of the approach to apply Evidence-Based Practices (EBPs) in health care. The Leading Source of Nursing and Allied Health Literature databases and AHRQ websites were used to locate the peer reviewed and other essential information for this project. Significant impacts of the TeamSTEPPS on health care organization were discussed in the specific literature review and impacts of applying EBPs were discussed in the general literature review.

Specific Literature

In November 2006, AHRQ, in collaboration with the DOD, released Team Strategies and Tools to Enhance Performance and Patient Safety as the national standard for team training in health care (Cannon-Bowers & Salas, 2005). TeamSTEPPS is based on long years of research related to a teamwork system designed for healthcare professionals according to information provided by AHRQ. It is a powerful solution for improving patient safety by promoting communication and teamwork skills among healthcare professionals (AHRQ, 2012). When health care professionals consider quality patient care, it is critical that they consider a team approach and make communication among members of the team critical to a successful outcome for the patient (King et al., 2008). The best quality care cannot be achieved without effective communication and team collaboration. As a direct outcome of the Institute of Medicine (IOM) report, *To Err is Human*, TeamSTEPPS has significant impact on health care organizations in the

form of tools and strategies to improve team performance. In fact, the TeamSTEPPS approach was implemented in over 68 military treatment facilities to enhance their ability to support any mission and increase the precision of care provided— both on the battlefield and in the combat support hospitals (Ferguson, 2008).

Many other health care facilities in the United States have already implemented TeamSTEPPS strategies into their organizations. A major health care organization noticed significant improvement in patient care as the result of implementation (Naiberk, 2012). The most prominent improvements were reducing medication errors that reach the patient by 30% and patient falls by 88%, both the result of using TeamSTEPPS tools to identify problems and improve communication (Naiberk, 2012).

Developing a creative strategy to promote the use of TeamSTEPPS approach was necessary. First, Butler County Health care Center created two stuffed animal mascots, named Yaya and Didga. They traveled around the hospital as part of the TeamSTEPPS approach awareness campaign and shared the tools and strategies. According to Naiberk (2012), there is an excitement and mystery associated with those mascots and a healthy competition in finding them in the organization. Second, a TeamSTEPPS session called a “Play and Learn” was held the first Friday of every month in the staff cafeteria. Offering the sessions every month helped their staff members to remain actively involved in maintaining the cultural changes and the improvement process. Holmes and Williams (2012) found that stability, consistency, and continuity were essential components when promoting positive cultural change in an organization.

A customized, short version of TeamSTEPPS trainings was provided to medical, nursing, and respiratory therapy staffs, in both the pediatric intensive care unit and the surgical intensive care units of an academic medical center in the United States. As the result, the percentage of

hospital-acquired infections for both the intensive care units was lower than the previous year (Mayer, Cluff, & Wei-Ting, 2011). This data demonstrates that even though the training was very short, the program can impact patient safety significantly.

Collection of evaluation data of TeamSTEPPS approach at the world, national and regional level is important (AHRQ, 2012) because it will allow health care professionals and decision makers to apply the approach to their organizations with confidence. The TeamSTEPPS national implementation plan has generously been provided to not only six regional training centers in the United States, but also other countries such as South Australia. TeamSTEPPS approach was implemented in four metropolitan and one rural health facilities in South Australia in 2008. The outcomes of the TeamSTEPPS implementation varied in each facility but were positive in all facilities. The rural facility used a tool called “Know the plan-Share the plan” to promote communication among health care professionals. As the result, communication among them became more efficient and nurses know exactly what is expected from other health care professionals (Australian Commission on Safety and Quality in Health care, 2009). The tool was also implemented in Christiana Care Health System in the United States and 90.2% of respondents agreed that the use of the tool improved team knowledge of the plan of care (Moore & Gagliano, 2010). TeamSTEPPS has numerous tools and strategies that health care organizations can implement to promote effective communication among health care professionals. Even one tool, such as “Know the plan-Share the plan,” can have a positive impact on outcomes of patient care. The other health care facilities in South Australia used a hand-off communication tool to improve communication especially during handover. Australian Commission on Safety and Quality in Health care found that the tool lead to a more organized and streamlined way of communication among health care professionals and the TeamSTEPPS

triggered significant changes in the manner and quality of communication. Australian Commission on Safety and Quality in Health care concluded that across the facilities teamwork, measured by TeamSTEPPS-Teamwork Attitudes Questionnaire and TeamSTEPPS-teamwork Perceptions Questionnaire increased significantly post-implementation on average by about 9% and there were large reductions in the number of incident reports of certain types, particularly falls with an overall reduction of 40%, documentation with a 52% reduction, and aggression incidents had a 31% decrease.

TeamSTEPPS programs offer the health care professionals the interdisciplinary briefs where they stop and evaluate situations and take a time out by using some of the teamwork tools and techniques (Health care Benchmarks & Quality Improvement, 2010). TeamSTEPPS is team strategies tools to enhance performance and patient safety (Alonso, Baker, & Day, 2006). TeamSTEPPS is designed to improve the quality, safety, and the efficiency of health care by integrates teamwork into practice.

Developing and implementing standardized effective hand-off communication tools are essential components in the TeamSTEPPS program. According to Eaken Zhanl (2012), improved hand-off communication among health care professionals has decreased readmission by 50% and has reduced transfer time from the Emergency Department to inpatient care by 33%. As discussed earlier, the Joint Commission (2012) found that nearly 80% of sentinel events induced by miscommunication occurred during hand-offs. This type of communication occurs frequently in health care settings. Common situation is a transition of care between nurses, between nurses and physicians, between two different departments, and between two different facilities. To assist a health care facility with exchanging necessary and critical patient information effectively and efficiently, hand-off communication tools must be developed and implemented. However,

implementation of the tools will not resolve true communication issues among healthcare professions. Johnson (2009) found that about 85% of nurses and physicians report that the root cause of miscommunication between them is uncivil behaviors. Disruptive behaviors in health care may decrease morale and productivity of care. TeamSTEPPS approach will foster civil behaviors among health care professions by providing an opportunity to learn about others and to practice together as a team.

General Literature

The Institute of Medicine (IOM) addresses the importance of possessing certain skills and competencies in order to enhance patient care quality and safety (2011). Applying EBPs is one of five core competencies that all health care professionals must comply as well as providing patient-centered care, working in interdisciplinary teams, applying quality improvement, and using information technology. EBPs are defined as the integration of the best research evidence with clinical expertise and patient perspectives to provide safe and high quality care reflecting the needs and values of the individuals. Many studies address the promotion of a safety culture in health care organizations with use of evidence-based standards of care is required (AHRQ, 2012). However, Melnyk, Fineout-Overholt, Gallagher-Ford, & Kaplan, (2012) found that while nurses across the United States had positive attitudes toward EBPs and were willing to gain more knowledge and skills in EBPs, they are still facing significant barriers with incorporating the EBPs in clinical practice. Melnyk et al. (2012) conducted a survey with 18 5-point Likert-scale items for a random sample of 1015 Registered nurses. They found that only 53.6% of respondents (544) agreed or strongly agreed that EBPs were consistently implemented in their organizations, 76.2% of respondents (773) agreed or strongly agreed that it was important for them to receive more education and skills building in EBPs, and 34.5% of respondents (329)

agreed or strongly agreed that EBPs mentors were available in their health care system to assist the implementation. These results indicate that the barrier of implementation of EBPs may be a lack of organizational culture and leadership that should provide support needed for the implementation. Also, in the study 75.3% of respondents (764) are looking for tools that can help implement EBPs with patients. Adapting TeamSTEPPS approach based on organizational needs and developing tools to promote communication among health care professionals may be a way to implement an EBP in the organization.

The Institute of Medicine (IOM) focuses on the expansion of opportunities for nurses to lead and diffuse collaborative improvement efforts with other health care professionals. Interdisciplinary collaboration, the positive interaction of two or more health care professionals, is a key to positive outcomes for patients. Nash states that interdisciplinary collaboration can bring different perspectives to a problem and facilitate creative solutions to the problem (2010). The importance of the interdisciplinary collaboration is becoming more recognized. Okoronkwo, Anieche, Chinweuba, and Ndu (2013) conducted a cross-sectional descriptive survey with a total population of 578 and found that perceived enhancing factors of collaboration among physicians and nurses are clearly written and oral communication, good working relationships and clarification of individual roles. This result indicates that effective communication skills are crucial components in interdisciplinary collaboration. Improving quality of care by promoting effective communication among health care professionals with TeamSTEPPS approach is an essential project for variety of health care organizations. Effective communication and team situation awareness are vital aspects of safety culture (Abbott, Rogers, & Freeth, 2012). AHRQ (n.d.) states that communication among health care professionals significantly influences the

quality of working relationships, job satisfaction, patient satisfaction, and profound impacts patient safety.

Health care organizations must focus on communicating with patients and in order to make effective improvements and achieve higher levels of patient satisfaction, healthcare organizations must define areas of improvements. Some organizations have lower customer satisfaction rates to compare with other facilities. Medicare provides some incentives based on patient satisfaction results during hospitalization. Medicare spends a tremendous amount of money on health care organizations due to preventable, sentinel events. Every year about 98,000 people die as a result of them (The Joint Commission, 2012). One of the main reasons for sentinel events and low satisfaction rates is poor communication. It is clear that there is a significant relationship between sentinel events and patient satisfaction.

Effective communication is vital to promote safe practices and to increase patients' satisfaction and the lack of it is one of the factors for patient non-compliance. According to Wanzer, Wojtaszczyk, & Kelly (2009), effective communication practices minimize patient complaints, improve patient satisfaction, and lead to more effective diagnosis and treatment of illness. However, many research data show that patients are not satisfied with health care professions' communication skills. Only 55% of patients thought physicians did an excellent job in terms of communication skills and 18% of physicians believe that they have had good training in patient communication (Makoul, Krupat, & Chang, 2007). According to Institute for Health care Communication (2011), communication training for health care providers and other health care professionals historically has received far less attention than have other clinical skills. The IOM has identified that health care professionals lack adequate training in providing safety and quality patient centered care and addressed the importance of strengthen training requirements in

the delivery of patient centered care (IOM, 2003). Members of the team: Physicians, nurses, other allied health care professions, pharmacists, nurse technicians, and secretaries must coordinate their activities to make patient care safe and efficient (Alonso, Baker & Day, 2006). It is stated that teamwork is critical to ensure patient safety on a shared goal of achieving optimal outcomes for all patients (Cannon-Bowers & Salas, 2005). The culture of each department is the basis for the care that provided patients, which results in high satisfaction rate. Fostering nurses' internal motivation to care may be going to increase the frequency of caring behaviors toward others, and consequently patient satisfaction (Burtson & Stichler, 2010). The qualitative data suggests that effective communication among patients and health care professionals is very important to create the culture of a department to increase patient satisfaction.

Conceptual Models

Swartz-Barcott and Kim's hybrid method may be useful for this project. Sayers and de Vries mention that the hybrid model of Swartz-Barcott and Kim uses a fieldwork phase that concentrates on qualitative data collection as a further analysis of a concept (2008). Quantitative research could be a great option to measure the reduction of sentinel events due to lack of communication. However, it is vital for this project to analyze the depth and breadth of root cause issues with communication among interdisciplinary health care teams. Promoting interdisciplinary collaboration is a part of TeamSTEPPS approach. Collaboration across disciplines will allow health care professionals to bring their particular expertise and experiences to influence the priority health care issues that the United States of America is confronting. Diverse perspectives may provide a bigger and more complete picture and understanding of how and where health care professionals need to improve to ensure safe and quality care.

The use of the stages of change theory, as developed by Prochaska, DiClementi, and Norcross (1992), is very beneficial to guide efforts to change the behaviors of health care providers in the behavioral health clinic. The model describes five stages that people pass through when change occurs: (a) Precontemplation; (b) Contemplation; (c) Preparation for action; (d) Action; and (e) Maintenance. Each individual's behavioral change is necessary to promote better communication among healthcare professions at the practicum site. This model clearly explains a way they can develop behaviors that support change.

To undergo Behavior change within a group, it is essential to understand similarities and differences of beliefs, habits, likes, dislikes, and customs in the group. Applying Leininger's cultural care diversity and universality theory in nursing will create positive differences in patients' outcome. Leininger states that providing culturally competent, culturally specific care must be customized to fit with the patient's own cultural values, beliefs, traditions, practices, and lifestyle (Bailey, 2009). Everyone belongs to one or more cultural groups and diversity may exist based on many different factors. Everyone includes all health care professionals has unique cultures. Due to the reason, it is very important to acknowledge that diversity is unique and ever changing. This theory has been used for research very commonly because the concept of culture competent care is widely recognized and crucial in health care. High-quality care can only occur when the caregivers completely understand the patient's cultural context. Diversity is commonly seen in the workplaces. It is very important for health care professionals to create workplaces that support diversity among health care professionals and promote multicultural harmony. It is a key to create the environment that everyone respects differences and promote the awareness in the workplaces.

Section 3: Approach

Project Design/Methods

The TeamSTEPPS strategies and tools were developed over 25 years of extensive research and lessons learned from applying teamwork principles in organizations. Because successful implementation of TeamSTEPPS requires carefully developed plans, it was essential for the TeamSTEPPS program initiators to follow the specific guidelines. The goal of this project was to inform the development of a program to adapt the TeamSTEPPS approach. The program included an assessment plan, an implementation plan, an evaluation plan, and an institutional sustainment plan. Forms or tools that were essential for these plans were fully developed in this project. Program conductors in a health care organization will implement this project. The institutional Review Board has approved this project. The record number is 07-23-14-0040171.

Even though the AHRQ already has a three-phased process aimed at creating a culture of safety with an assessment plan, an implementation plan, and a sustainment plan, the evaluation plan was added into this project. The purpose of the program evaluation was to determine the impact of the TeamSTEPPS approach in health care organizations. Program evaluation provided feedback on results, accomplishments, or impact/outcomes and informed policy makers and planners about the effectiveness of the program (Kettner, Moroney, & Martin, 2013). Feedback on results was an essential component in sustaining the program. The feedback gave the TeamSTEPPS program conductors clear guidance on how to maintain and/or improve their program.

Population

The population of this project was health care professionals in a midsized health care organization in the Dallas-Fort Worth area. The health care organization was a safety-net

hospital with over 50 facilities in one county to serve the needs of a variety of patient populations and where roughly 25% of patients are on Medicaid. It was vital for the health care organization to conduct a community health needs assessment and adapt an implementation strategy to meet the identified needs. Improving the quality and safety of care for the community it serves is a goal for any health care organization in the United States. Adapting the TeamSTEPPS approach was expected to create a more efficient, coordinated, and patient-centered system in the health care organization.

This project may be implemented as department-wide or organization-wide performance improvement project. The sample size depends on the number of individuals participating. The larger sample size, the harder it is to implement the project because of the additional process of the participants' involvement. This project should be initiated first with a small population first and then, if the outcomes are positive, implemented on a larger scale. For positive outcomes, the participants must actively participate in the project. Techniques to enhance recruitment and retention of the participants are given in the following list (Patel et al., 2003).

1. Consider the costs and benefits to participants.
2. Stress the relevance of the project.
3. Enhance generic skills, personal skills, and interpersonal communication skills.
4. Establish adequate training and supervision,
5. Establish targets and investigator incentives.
6. Implement assertive tracking procedures using various modes of communication.

Those who conduct the project must be able to identify participants' barriers and limitations, discuss them with the participants at the beginning of the project, and adopt some type of prevention method.

TeamSTEPPS Program

AHRQ states that time spent developing a well-thought out and detailed action plan would decrease wasted hours and setbacks throughout the improvement effort. The following plans will be used for each project conductor to develop a comprehensive action plan that is suitable for a department in a health care organization.

Assessment Plan

The goal of the assessment plan is for a health care organization to determine the needs for promoting quality of care to determine whether sufficient resources are available to promote effective communication among health care professionals. Conducting well-designed quality and timeliness assessments is vital to identify a known need of the institution and gather data to lead project conductors in making appropriate actions for the need. Hodges & Videto (2011) wrote that developing effective and efficient programs requires assessing needs and assets associated with the target population and the environments.

During this phase, involvement and support of all participants including conductors, administration members, unit managers, and key staff members in each unit are essential. Creating an effective team of leaders is necessary to motivate others to drive a successful TeamSTEPPS initiative (AHRQ, n.d.). A leader must be selected from each health care professional includes directors/managers, medical doctors, nurses, physical therapists, respiratory therapists, certified nursing assistants, secretaries, and social workers. If key team members are not ready to make a commitment to implement the TeamSTEPPS initiatives, more likely this project will fail. Obtaining baseline data that would support the needs for the change will be necessary to help the key team members recognizing the importance of the TeamSTEPPS initiatives. There is normally a 2-month period between assessment and implementation. This is

to account for some pre-work and a marketing campaign that is conducted by the key team members at the organization.

Challenges that conductors may encounter in the assessment process must be addressed at the beginning of the project. The conductors must recognize the challenges they are currently facing and may face in the future and determine how the challenges will result from existing processes. With proper identification of the challenges, it becomes clear what interventions are needed and how ready the stakeholders and organizations are to engage in the interventions (AHRQ, n.d.).

Clear goals and objectives must be identified to lead the key team members to the right direction. There is no doubt that when project objectives are developed with the primary focus on the participants, the outcome of the project will be most likely positive. Tailoring the goals and plans to the unique characteristics of the participants and their preferences will assist them actively involved in the program (Berman & Snyder, 2012). It is crucial for the project conductors to consider a variety of factors that may affect TeamSTEPPS program implementation when developing the goals and objectives for the program with participants. The factors could be participants' values and beliefs, their priorities, and urgency of the current issues for the participants. The conductors may face multiple conflicts with participants unless they understand those factors.

Data collection.

Although the author is not fully involved in data collection for this project, the detail suggested data collection methods would be discussed. Conducting well-designed quality and timeliness assessments is vital to identify a known need of participants and gather data to lead conductors in making appropriate actions for the need. To conduct effective assessments,

appropriate process must be taken. It is essential to identify gaps between current situations and desired situations. Recognizing the gaps will guide conductors to create appropriate goals and objectives. The goals and objectives provide the framework for planning and evaluating programs and interventions (Hodges & Videto, 2011). To identify the current situations in communication and teamwork skills, existing survey outcomes of the Hospital Consumer Assessment of Health care Providers and Systems (HCAHPS) will be used. The most recent HCAHPS survey outcomes should be also obtained at Centers for Medicare & Medicaid Services website before and after the implementation of TeamSTEPPS approach to compare the survey results.

The conductor of this project may also use another additional data collection method. TeamSTEPPS-Teamwork Attitudes Questionnaire and TeamSTEPPS-teamwork Perceptions Questionnaire developed by the U.S. DoD will be used to measure individual attitudes related to vital components of teamwork that is essential in TeamSTEPPS implementation and individual perceptions of group level team skills and behaviors. Over 90 questionnaires were tested and refined during cognitive interviews, small group trials, and field test that involved 169 healthcare professions (AHRQ, n.d.) and 35 items were carefully selected for TeamSTEPPS-Teamwork Perceptions Questionnaire and 30 items were selected for TeamSTEPPS-Teamwork Attitude Questionnaire. Because attitude plays a very important role in influencing behaviors (Hodges & Videto, 2011), the TeamSTEPPS-Teamwork Attitude Questionnaire will help the conductors to identify individual's attitudes toward the current issues related to teamwork and communication in the organization. While it captures how individuals approach team-related issues, it does not measure adequately how individuals perceive the current state of teamwork within an organization (AHRQ, n.d.). TeamSTEPPS-Teamwork Perceptions Questionnaire will be used to

measure individuals' perception of overall teamwork in the organization. The TeamSTEPPS-Teamwork Perceptions Questionnaire is based upon the core components of teamwork that comprise TeamSTEPPS: team structure, leadership, communication, mutual support, and situation monitoring (AHRQ n.d.). Increasing the awareness of the current situations will be a first step for the successful implementation of a project.

Conducting a site assessment is required to identify barriers to implementing change and to decide whether resources are in place to successfully support the initiatives (AHRQ, n.d.). To identify common practice problems and issues related to poor communication this project author has followed nurses, a nurse practitioner, a secretary, a physician, a social worker, and a nurse assistant for over six months. The author discussed with the health care professionals issues related to communication and teamwork and evaluated current approaches and/or tools that they had been using to promote effective communication.

Implementation Plan

The implementation of TeamSTEPPS program requires the following steps:

1. Continue gaining participants' commitment to the plan.
2. Develop a communication plan among employees in the organization.
3. Prepare the organization to accept change.
4. Implement trainings to participants.
5. Develop tools to enhance communication.

Collaboration is imperative to achieve the desired outcomes (Gill, 2011). Successful recruitment of participants is critically dependent on initial contacts made with administrative and clinical staff (Patel, Doku, & Tennakoon, 2003). It is essential for the conductors to communicate with the participants in a professional manner and to develop a rapport. Recruiting

with face-to-face pre-enrollment conversation is critical to develop the rapport with the participants. If a rapport among program conductors and participants is built, there will be a good chance that the participants will accept the program conductor as a leader rather than a researcher.

Extensive amount of education, meetings, and collaboration will be necessary for any actions to make changes. It is necessary to ensure that a variety of time and schedule are offered to complete the education so that some participants will be able to choose the best time from the choices. Conducting and providing education and the materials can be a significant challenge for implementers. It is clear that nobody is alike and each of participants has different preferences. Some of the participants are comfortable with the new changes, and the others are easily terrified. It is essential to assess the needs of each individual to provide the education and take the time to complete the education to meet their needs. It is crucially important that the medical staff support the program by reminding them that they are part of the TeamSTEPPS team and that the training is in the best interests of patient safety. Also, having a clear vision with strong leadership skills will be a key to the success for conductors. Transparency and flexibility during the implementation is crucial to guide the participants.

Unique environment makes communication among health care professionals more challenging and requires using effective communication techniques. The health care professionals tend to fail using a hand-off communication tool to enhance communications with each other. Hand-off communication techniques not only contain unique information pertinent to care, but also provide built-in redundancy of vital facts so that essential information is not lost in the process (Amato-Vealey, Barba, & Vealey, 2008). Written communication tools will be very useful to assist the health care professionals to organize their thoughts and present the

information in detail. It is also useful because the receivers will have a hard copy of the important information for reference. It is crucial to add interpersonal aspects in communication.

A sample hand-off process map is developed. The map may be used to serve for the healthcare professionals as the basic foundation of the hand-off communication process. According to the Joint Commission (2012), the unique healthcare environment is one of factors to increase risk of medical errors. The use of standardized and structured hand-off communication tools may conduct detail handoffs among health care professionals. An example of hand-off communication tools that may be used to promote effective communication among health care professionals is also developed for this project.

Evaluation Plan

Evidence is the foundation on which people make decisions and set policy. Gathering evidence is a crucial component of this project. Evaluation plans and guidelines are developed to support project conductors which implements TeamSTEPPS approach. The project conductors will be undertaken with the project team as part of the project. The aim of the evaluation is to ensure that this project continues focusing on the needs of the health care professionals and the health care institution.

Giving evaluation may be challenging because some participants/health care professionals may react defensively to the feedback. Setting standards helps the conductors to assess whether the set of evaluation activities are well designed and working to participants' potential (Kettner, Moroney, & Martin, 2013). The four stages of evaluation formative evaluation, process evaluation, impact evaluation, and outcome evaluation (Friis & Sellers, 2009) will be used to continuously evaluate the project implementation process. This evaluation plan is appropriate because it allows participants to be actively involved in the evaluation process.

It is essential to engage the participants in the evaluation of a program that requires changes in participants' behavior, attitude and skills.

Data analysis and project evaluation plan.

The ongoing assessment of the effectiveness of interventions is very important. The use of the outcome evaluation is an ideal method to measure positive changes due to the intervention. All project participants may be evaluated with the tools consistently throughout the change process. Survey scores of the questionnaires may be used to measure the effectiveness of the interventions. A five-level Likert scale is applied in the questionnaires to simplify the process of data analysis. A Likert scale is composed of a series of four or more items that are combined into a single composite score (Boone, 2012). The Likert scale is very useful to measure attitudes, character, and personality traits of quantitative approaches. The questionnaires consist of questions with five alternative responses: 1 (*strongly agree*), 2 (*agree*), 3 (Neutral), 4 (*disagree*), and 5 (*strongly disagree*). Use of neutral category is given to allow the respondent to avoid the clear choice of positive or negative statement (Burns & Grove, 2009). With Likert scale data, each item in the instruments will be summed to obtain a single score. This process will make the results of surveys much easier to analyze and interpret. The responses can be displayed the distribution of the responses in a graphic like a bar or pie chart.

The HCAHPS survey is a standardized measuring tool for collecting or publishing patients' perspective of care at acute care facilities that would enable valid comparisons to be made across all health care organizations (Huppertz & Carlson, 2010). The data gathered by the HCAHPS are available on the CMS's Hospital Compare Web site. The data will be evaluated before and after implementation of the TeamSTEPPS approach to measure the health care professionals' communication skills and patients' satisfaction. To get the most consistent and

accurate HCAHPS data, the outcomes should be reviewed quarterly or yearly. Analyzing the data monthly is not recommended because several happy or unhappy patients in the period may skew the outcomes of HCAHPS.

A longitudinal design may be used to examine any changes and outcomes of HCAHPS before and after the TeamSTEPPS approach. Data from Likert responses should be collected into bar or pie charts to present to participants. The longitudinal design requires long-term commitment of key team members and participants (Burn & Grove, 2009). It is essential to constantly communicate with the participants to keep them in a loop. It is required to find some strategies to manage the large amount of data for a long time. One recommendation is to recruit a specialist to focus on collecting and analyzing the data closely for several years.

Sustainment Plan

Building a base for the long-term growth and success is essential to promote quality of care and services. Maintaining and continuing the developed plans will be a crucial piece of the puzzle to develop the basement. The steps of the TeamSTEPPS sustainment plan are the following (AHRQ):

1. Provide stakeholders opportunities to practice the implemented plans.
2. Provide the stakeholders consistent feedbacks and coaching.
3. Celebrate new ideas, achievements, and successes of the implementation.
4. Evaluate the sustainment plan and change as needed.

Providing two different types of feedbacks, positive feedback and constructive feedback is very important to promote professional personal growth of participants during a sustainment phase. Raising awareness by providing comprehensive, constructive feedback early on can bring

about change in performance (Duffy, 2013). The detail sustainment plan to raise awareness is developed for this project.

It is very important to celebrate ideas, achievement, and successes of implementation of this project to motivate the participants. The participants need to see how the implementation changes the quality of care. The outcomes must be shared openly and honestly. No matter what the outcomes are, the conductors must focus on emphasizing on learning in a non-punitive environment.

Summary

Adapting TeamSTEPPS approach will create a more efficient, patient centered and coordinated system in the health care organization. Informing development of a program that adapts TeamSTEPPS approach is the goal of this project. The project will include an assessment plan, an implementation plan, an evaluation plan, and an institutional sustainment plan. Forms or tools that are crucial components for these plans are developed for the project.

Section 4: Discussion and Implications

Introduction

Today, health care systems use many different programs that promote safe and quality care. The programs may differ in size and approach, but they must be based on the needs of the current health care system in order to be effective. Successfully improving safe and quality care involves effective communication among health care professionals. The TeamSTEPPS approach was developed to improve individuals' attitudes and perceptions about teamwork in order to create open environments that encourage inter-professional communication. The purpose of this project was to adapt the TeamSTEPPS approach to the institutional context of the practicum site in order to produce highly effective medical teams that achieve the safest patient care. The goal of the project was to inform development of a program that adapts TeamSTEPPS approach to the institution. The outcome for this goal was the hand-off communication program, which was developed based on the needs of each healthcare professional and departmental culture.

Discussion

This project used the stages of change theory from Prochaska, DiClementi, and Norcross (1992) to guide efforts to change the behaviors of health care professionals. The model describes five stages that people pass through when change occurs: (a) Precontemplation; (b) Contemplation; (c) Preparation for action; (d) Action; and (e) Maintenance (White & Dedley-Brown, 2012). To promote better communication among healthcare professions at the practicum site, all members/participants must undergo behavior change.

All health care professionals with whom I spoke were ambivalent about change. They played vital roles in promoting quality care and addressed the importance of change for higher quality care. According to these health care professionals, the facility has a high turnover rate,

which has a negative impact on health care quality and organizational stability (Lee, Tzeng, Lin, & Yeh, 2009). Also, the facility is a teaching hospital. Therefore, residents usually come and go. Residents often come from other departments to cover the other residents as well. Because the residents are unfamiliar with the environment and the employees, it seemed difficult for both residents and employees to communicate and collaborate. The unique environment and situations addressed by the health care professionals require effective communication techniques but made communication among them more challenging.

Implications

Health care professionals in the department would assume ownership of this project and use the process maps and tools to promote effective communication among them. An assessment plan, an implementation plan, an evaluation plan, and a sustainment plan were developed for health care professionals to implement this program. The assessment plan was partially completed by the project author and the findings were discussed in Appendix A. The health care professionals at the facility may complete the further assessment plan. The suggested plans are included in Appendix A through E and the suggested project timeline is included in Appendix F.

Assessment Plan

The purpose of this assessment plan is to identify the needs for promoting quality care and to determine whether sufficient resources are available to promote effective communication among health care professionals. The author carefully reviewed the data in the HCAHPS to identify the needs for quality improvements (see Table 1). Providing safe and quality care is a mutual goal for all health care professionals. They have recognized quality improvement as a part of their practices. Prior to developing the hand-off communication program, roles played by each health care professional at a behavioral health department in a mid-sized healthcare facility

to promote safe and quality care were carefully observed. To identify common practice problems and issues related to poor communication this project author has followed nurses, a nurse practitioner, a secretary, a physician, a social worker, and a nurse assistant for over 6 months. The author discussed with the health care professionals issues related to communication and teamwork and evaluated current approaches and/or tools that they had been using to promote effective communication.

This author encouraged the healthcare professionals to evaluate the pros and cons of using hand-off communication process maps and hand-off communication tools and to identify and promote new positive outcome expectations. The health care professionals were engaged in determining how this intervention contributed to change. They were very supportive with the use of the hand-off communication process maps and tools. I partnered with each healthcare professional to carefully identify what needed to be included in the hand-off communication process maps and tools. The suggested assessment plan is included in Appendix A. The assessment plan was partially completed by the project author.

Implementation Plan

During the implementation period of the project, preparing the organization and the health care professionals is very important. This process may take time. A nurse leader, along with other clinical leaders is responsible for ensuring that the hand-off communication tools will be fully implemented. The detailed implementation plan and tools are included in Appendix B.

The health care professionals must have awareness and desire for change. Individuals change when they experience urgency of the needs (Chanmpoux, 2011). It is critical for them to create urgency by sharing concerns related to poor communication among health care professionals to support that change must occur in the organization. To achieve the improvement

in health care, the health care professionals must be fully involved in the process and use established evidence-based practices to support the practice. They must be committed to implementing evidence-based care to ensure that changes will be initiated toward the right path.

Extensive amount of education, meetings, and collaboration will be necessary for any actions to make changes. It is necessary to ensure that a variety of time and schedule are offered to complete the education so that some participants will be able to choose the best time from the choices. Conducting and providing education and the materials can be a significant challenge for implementers. It is clear that nobody is alike and each of participants has different preferences. Some of the participants are comfortable with the new changes, and the others are easily terrified. It is essential to assess the needs of each individual to provide the education and take the time to complete the education to meet their needs. It is crucially important that the health care professionals support the program by reminding them that they are part of the TeamSTEPPS team and that the training is in the best interests of patient safety. Also, having a clear vision with strong leadership skills will be a key to the success for conductors. Transparency and flexibility during the implementation is crucial to guide the participants.

Developing attitudes that promote team building is essential to have a high morale and high accomplishment team. Especially the attitudes will be more important when the health care professionals have to pick up the roles/tasks. Employees desire a voice. They would like to voice their opinions and concerns. Everyone must create an environment that the others will feel free to voice their concerns and feel less stress to cover the roles/tasks. People seek for guidance and direction from a leader. All employees may need extra help in adopting any changes. The lack of an adequate education/training may lead the employees to fall behind. It is clear that well-structured plans can make all the difference to the quality of the health care organization. It is

essential to involve all health care professionals in a project plan. However, often times it is not possible to work with every single person who would be involved in the project and keep them engaged. The important key to success is how they are going to identify key employees who are willing to be advocate for the others and keep them in the loop of communication during the project plan. The act of caring patients and delivering treatment plans is dependent on a whole team of people. To implement evidence into practice, teamwork and leadership skills are essential.

The hand-off process maps are included in Appendix B. During the process of this development, the environment and culture of the department were taken into consideration. These maps may be used to serve for the health care professionals as the basic foundation of the hand-off communication process. Also, it can be used as an instrument to educate new physicians and other employees and a monitoring tool in evaluating the information transferred. A color code was used to display a role of each health care professional in this process. These process maps were developed based on needs of health care professionals in a behavioral health department, but it may be modified for a specific department. If these maps will be used in other departments, all stakeholders from each health care professional must be involved in the modifying process to provide input into the process maps. The hand-off communication tools that may be used to promote effective communication among health care professionals are included in Appendix B.

Evaluation Plan

Assessment, Diagnosis, Planning, Implementation, and evaluation known as nursing process are crucial components for any actions. Evaluation is very important aspect of the process because conclusions drawn from the evaluation determine whether the implementation

of the bullying prevention program should be discontinued, continued, or modified (Berman & Snyder, 2012). Efforts to initiate the project evaluation are essential to show the extent of progress toward achievement of goals and enable the project implementation team to recognize the lack of knowledge regarding the effectiveness of the program. The four stages of evaluation formative evaluation, process evaluation, impact evaluation, and outcome evaluation (Friis & Sellers, 2009) will be used to continuously evaluate the project implementation process. The evaluation plan is included in Appendix C.

Giving evaluation may be challenging because some participants/health care professionals may react defensively to the feedback. Setting standards will help the key employees to assess whether the set of evaluation activities are well designed and working to participants' potential (Kettner, Moroney, & Martin, 2013). It is essential to engage them in the evaluation of a program that requires changes. In an evaluation period, it might be a challenge to see significant improvements as the outcomes of the project implementation because improvements are to be recognized by the cumulative effects. However, the implementation might be considered successful if some improvements are noticed during processes. Continuous evaluation and progress reports will be required monthly to keep the process on a right path. Monthly progress reports will be expected to have the performance management cycles. The use of the performance management cycles will help quality improvement teams to set clear goals, to achieve the strategic goals, and to measure the process of the implementation of changes in a specific time period. It is vital to measure whether the initiated changes have led to the sustainable improvement or not.

As the larger scale evaluation method, the HCAHPS may be used. HCAHPS is a standardized measuring tool for collecting or publishing patients' perspective of care at acute

care facilities that would enable valid comparisons to be made across all health care organizations (Huppertz & Carlson, 2010). The data gathered by the HCAHPS are available on the CMS's Hospital Compare Web site. The data may be also evaluated before and after implementation of the communication tools to measure the health care providers' communication skills and patients' satisfaction. To get the most consistent and accurate HCAHPS data, the outcomes should be reviewed quarterly or yearly. Analyzing the data monthly is not recommended because several happy or unhappy patients in the period may skew the outcomes of HCAHPS.

Sustainment Plan

Building a base for the long-term growth and success is essential to promote quality of care and services. Maintaining and continuing the developed plans would be a crucial piece of the puzzle to develop the basement. An effective sustainment plan should account for identification of opportunities for further improvements and sustainment of positive changes (AHRQ, n.d.). Providing two different types of feedbacks, positive feedback and constructive feedback is very important to promote professional personal growth of health care professionals during a sustainment phase. Raising awareness by providing comprehensive, constructive feedback early on can bring about change in performance (Duffy, 2013). Providing constant feedbacks is not an easy task. It is essential for the key employees to find mentors to provide the regular feedback to ensure that all health care professionals are meeting a goal. It is very important to celebrate ideas, achievement, and successes of implementation of this project to motivate the healthcare professions. They need to see how the implementation changes the quality of care. The outcomes must be shared openly and honestly. No matter what the outcomes

are, the conductors must focus on emphasizing on learning in a non-punitive environment. The detail sustainment plan is included in Appendix E.

Strength and Limitations

The health care professionals in the department assume ownership of this project and implement the process map and tools developed by the author to promote effective communication among health care professionals. The process map and tools may be used to serve health care professionals as the basic foundation of the hand-off communication process.

The strength of this project is that the author took into consideration the environment and culture of the department and each profession in order to develop the process maps and the communication tools. I spent over 6 months with each healthcare professional to understand their roles and needs in the practice. The subject experts provided positive feedback on the process map and communication tools.

The limitation of this project is that it was developed without full institutional support. I was not able to obtain anonymous surveys from all health care professionals that may be involved in this project. I developed the process map and communication tools with limited number of health care professionals whom the author had worked with during the practicum hours. Another limitation is that the author will not be able to fully participate to the implementation, evaluation, and sustainment phases of this project. However, I will be available for consultations.

Self-Analysis

Changes are inevitable in nursing. Being a change agent and leader is crucial for DNP-prepared nurses to engage in innovation and creative approaches to minimize chaos. Nurse leaders have the opportunity to promote improved patient outcomes by facilitating an evidence-

based nursing approach within clinical nursing education (Bassendowski & Penz, 2006). I experienced an opportunity to implement evidence-based practices for patients and develop safe and respectful work environment. I learned that it is essential for a DNP-prepared nurse to understand the roles of each health care professional and to be aware of clinical practices. Leaders are dedicated to translating leadership qualities into action. Leaders must take a stand for what they believe in and work to convince others to think and act in order to move forward. Health care industries have been changing and they will change consistently in the future. To find better ways of manage the changes, leaders have to take a path even if their followers are afraid to tread. Leaders empower others by providing leadership skills and guidance that enable others moving forward. No matter how effective the plan to initiate changes is if team members are not fully involved constantly, it will never be successful. Everyone has different believes. Within the teams, it is critical to make sure that there is always room to improve and a need for each team member's input into the plan. This author learned that the leaders have to believe that the team members have definitive value to add for improvement.

Summary

Applying culture of TeamSTEPPS approach will provide guidance for the health care professionals and allow them to voice their concerns and needs. All health care professionals should be involved in the planning. Creating well-thought-out assessment, implementation, evaluation, and sustaining plans with the health care professionals will strengthen teamwork and make the plans more successful. When a gap between what they are currently doing and what they want to do is filled, evidence-based practices will be effectively implemented within the team. It is essential to have leadership skills to successfully implement evidence into practice and to understand teamwork is important.

Section 5: Manuscript for Publication

Abstract

Promoting effective communication among health care professionals is essential to provide quality patient-centered care. This recommendation has been poorly implemented in many health care organizations. The problem addressed in this project was the negative impact on patient outcomes of poor and ineffective communication and teamwork skills among health care professionals. Effective and clear communication is vital in any health care team. The purpose of this project was to adapt the TeamSTEPPS approach to the institutional context to produce highly effective medical teams that achieve the safest patient care. The goal of the project is to inform development of a program that adapts TeamSTEPPS approaches to the institution. As the major part of the adaptation process, plans and tools for hand-off communications were developed. Improving attitudes and perceptions about teamwork and promoting effective communications was a first step in improving the quality of care in hospitals. The TeamSTEPPS approach could act as a new standard of care to improve communication skills. This project will be focusing on developing a well-thought out program that adapts TeamSTEPPS approaches to a health care organization.

Improving Attitudes and Perceptions About Teamwork Among Health care Professionals with a TeamSTEPPS Approach

Introduction/Background

Effective communication is essential to coordinate a health care team and promote higher quality of care. Without it, it is difficult to accomplish the common goal of promoting safe, quality care for patients. Poor communication can result from negative attitudes and perceptions about teamwork among health care professionals. Carriere & Bourque (2009) stated that there is a significant positive correlation among improvements in communication, patient outcomes, and nursing job satisfaction. But according to The Joint Commission (2012), clinical issues related to poor communication remain unsolved in many health care organizations. In 2006, as the result of significant numbers of sentinel events reported to The Joint Commission, the Agency for Healthcare Research and Quality (AHRQ) in collaboration with the Department of Defense, developed team strategies and tools to enhance performance and patient safety. The resulting program, called TeamSTEPPS, was to become the national standard in health care. The TeamSTEPPS program has been implemented nationwide since 2006 and has been recognized as one of the crucial trainings for developing teamwork and communication skills (AHRQ, n.d.). It is important to identify the root causes of the poor communication in health care organizations and to implement the Team STEPPS approach to solve them. The purpose of this project is to adapt the TeamSTEPPS approach to the institutional context to produce highly effective medical teams that achieve the safest patient care. As the major part of the adaptation process, hand-off communications process maps and tools are developed to promote communication among health care professionals.

Problem Statement

Nurses and other health care professionals have recognized that ineffective communication is one of the major risk factors for patient safety and quality improvement (The Joint Commission, 2012). Improving attitudes and perceptions about teamwork and creating environments that encourage conversations (a) increase the odds that vital issues will be discussed and (b) provide opportunities for resolution (Ulrich, 2007). Researchers and clinicians have consistently voiced the importance of promoting effective communication, but their recommendations have been poorly implemented in many health care organizations (2007). The Joint Commission announced in the last five years that more than 60% of the sentinel events were induced by miscommunication among health care professionals, and 80% of the miscommunication occurred during the hand-off communication (2012). Improved communication has been one of the Joint Commission's National Patient Safety Goals. The Joint Commission required healthcare organizations to establish a method such as hand-off communication tools that would afford providers an opportunity to ask, and respond to questions and thus help eliminate communication errors. It is important to create tools and an environment that promote better communication among health care professionals in the health care organizations.

Evidence-based Significance of the Project

When the health care system is incompetent and unsafe, nurses must act to protect patients and the public. Nurses always assume responsibility and accountability for individual nursing actions. Without the implementation of practices guided by research evidence, the nursing actions may not be safe and effective. Applying evidence to practices is vital to protect the patients, the public, and the nurses. There are some health care issues that need immediate

change (AHRQ, n.d.). These issues indicate that current policy is not effective enough to promote quality and safety practices in the health care organization. The new alternative policy and guidelines must be developed and initiated to address and manage the current health care problems. Translation of evidence into policy is not easy (White & Dedley-Brown, 2012). Poor quality of research, inadequate policy analysis, lack of timeliness, and lack of leadership may translate into wrong policy implementation (White & Dedley-Brown, 2012). It is essential for nurse leaders, other health care professionals, and other stakeholders to remove the unnecessary barriers that are preventing the translation of evidence into practices (White & Dedley-Brown, 2012). Nurse leaders must be active participants to champion the enhancement of evidence-based practices in health care. Nurses are active participants in the formation, implementation, and evaluation of public policy directed at improving the health of individuals, families, groups, and communities (Fawcett & Russell, 2005). Social changes are essential to meet the needs of humans when current systems are not functioning. Data shows that current communication methods among health care professionals are not functioning (AHRQ, 2013). Implementing a new guideline, such as the TeamSTEPPS approach, will be a significant challenge without the collaboration with other health care professionals.

Project Goal and Outcome

The goal of the project was to inform the development a the program that adapts the TeamSTEPPS approach to the institution. The outcome was the hand-off a communications program among health care professionals that was developed based on needs of each health care professional and the culture of the department.

Definitions of Terms

Hand-off communication tools allow health care professions to exchange necessary patient information to ensure patient safety and continuity of care.

The HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) survey is:

the first national, standardized, publicly reported survey of patients' perspectives of hospital care. While many hospitals have collected information on patient satisfaction for their own internal use, until HCAHPS there was no national standard for collecting and publicly reporting information about patient experience of care that allowed valid comparisons to be made across hospitals locally, regionally and nationally. The HCAHPS survey asks discharged patients 27 questions about their recent hospital stay. The survey contains 18 core questions about critical aspects of patients' hospital experiences, communication with nurses and doctors, the responsiveness of hospital staff, the cleanliness and quietness of the hospital environment, pain management, communication about medicines, discharge information, overall rating of hospital, and would they recommend the hospital (Centers for Medicare & Medicaid Services, n.d.).

The Joint Commission is an independent, not-for-profit organization. The Joint Commission accredits and certifies more than 20,000 health care organizations and programs in the United States (The Joint Commission, 2012).

National patient safety goals are developed by the Joint Commission to help accredited organizations address specific areas of concerns in regards to patient safety.

TeamSTEPPS is a teamwork system designed for health care professionals that is:

- a) a powerful solution to improving patient safety within your organization; b) an evidence-based teamwork system to improve communication and teamwork skills among

health care professionals; c) a source for ready-to-use materials and a training curriculum to successfully integrate teamwork principles into all areas of your health care system; d) scientifically rooted in more than 20 years of research and lessons from the application of teamwork principles; and e) developed by DoD's Patient Safety Program in collaboration with the Agency for Healthcare Research and Quality (AHRQ, n.d.).

Literature Review

The Institute of Medicine (IOM) addresses the importance of possessing certain skills and competencies in order to enhance patient care quality and safety (2011). Applying Evidence-Based Practices (EBPs) is one of five core competencies that all health care professionals must comply as well as providing patient-centered care, working in interdisciplinary teams, applying quality improvement, and using information technology. Many studies address the promotion of a safety culture in health care organizations with use of evidence-based standards of care is required (AHRQ, 2012).

TeamSTEPPS is based on long years of research related to teamwork system designed for health care professionals according to information provided by AHRQ. When Health care professions consider quality patient care, it is critical that they work in a team approach and ensure that communicating among members of the team is critical to the successful outcome for the patient (King et al., 2008). The best quality care cannot be achieved without effective communication and team collaboration. As a direct outcome of the IOM report, *To Err is Human*, TeamSTEPPS has made significant impacts within health care organizations as tools and strategies to improve team performance. TeamSTEPPS is team strategies tools to enhance performance and patient safety (Alonso, Baker, & Day, 2006). TeamSTEPPS is designed to improve the quality, safety, and the efficiency of health care by integrates teamwork into practice.

Developing and implementing standardized effective hand-off communication tools are essential components in the TeamSTEPPS program. According to Eaken Zhanl (2012), improved hand-off communication among health care professionals has decreased readmission by 50% and has reduced transfer time from the Emergency Department to inpatient care by 33%. Improving quality of care by promoting effective communication among healthcare professionals with TeamSTEPPS approach is an essential project for variety of healthcare organizations. Effective communication and team situation awareness are vital aspects of safety culture (Abbott, Rogers, & Freeth, 2012). According to AHRQ (n.d.), communication among health care professionals significantly influences the quality of working relationships, job satisfaction, patient satisfaction, and profound impacts patient safety.

Conceptual Models

The use of stages of change theory from Prochaska, DiClementi, and Norcross (1992) is very beneficial to guide efforts to change the behaviors of health care professionals in the behavioral health clinic. The model describes five stages that people pass through when change occurs: (a) Precontemplation; (b) Contemplation; (c) Preparation for action; (d) Action; and (e) Maintenance (White & Dudley-Brown, 2012). Each individual's behavioral change is necessary to promote better communication among healthcare professions at the practicum site. This model clearly explains a way they can develop positive behaviors that support change.

Discussion

Providing safe and quality care is a mutual goal for all health care professionals. The professionals have recognized quality improvement as a part of their practices. Prior to developing the hand-off communication program, roles played by each health care professional

at a behavioral health department in a midsized health care facility to promote safe and quality care were carefully observed. To identify common practice problems and issues related to poor communication this project author has followed nurses, a nurse practitioner, a secretary, a physician, a social worker, and a nurse assistant for over 6 months. I discussed with the health care professionals issues related to communication and teamwork, and evaluated current approaches and/or tools that they had been using to promote effective communication.

All health care professionals whom I conversed with were ambivalent about change. They played vital roles in promoting quality care and addressed the importance of change for higher quality of care. However, the unique environment and situations make communication among them more challenging and require using effective communication techniques. I encouraged the health care professionals to evaluate the pros and cons of using hand-off communication process maps and hand-off communication tools and to identify and promote new positive outcome expectations. The health care professionals were engaged in determining how this intervention contributed to change. They were very supportive with the use of the hand-off communication process maps and tools. I discussed with each health care professional and carefully identified what need to be included in the hand-off communication process maps and tools.

Evidence-Based Communication Tools

During the process of this development, the environment and the culture of the department were taken into consideration. These maps may be used to serve for the health care professionals as the basic foundation of the hand-off communication process. Also, it can be used as an instrument to educate new physicians and other employees and a monitoring tool in evaluating the information transferred. A color code was used to display a role of each health

care professional in this process. The hand-off communication tools that may be used to promote effective communication among health care professionals are included in Appendix B.

Implications

Health care professionals in the department would assume ownership of this project and use the process map and tools to promote effective communication among them. An implementation plan, an evaluation plan, and a sustainment plan were developed for health care professionals to implement this program. The suggested plans are included in Appendix A through E and the timeline is included in Appendix F.

Assessment Plan

The purpose of this assessment plan is to identify the needs for promoting quality care and to determine whether sufficient resources are available to promote effective communication among health care professionals. The author carefully reviewed the data in the HCAHPS to identify the needs for quality improvements (see Table 1). Providing safe and quality care is a mutual goal for all health care professionals. The professionals have recognized quality improvement as a part of their practices. Prior to developing the hand-off communication program, roles played by each health care professional at a behavioral health department in a mid-sized health care facility to promote safe and quality care were carefully observed. To identify common practice problems and issues related to poor communication this project author has followed nurses, a nurse practitioner, a secretary, a physician, a social worker, and a nurse assistant for over six months. The author discussed with the health care professionals issues related to communication and teamwork and evaluated current approaches and/or tools that they had been using to promote effective communication.

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Implementation Plan

During the implementation period of the project, preparing the organization and the health care professionals is very important. This process may take time. A nurse leader, along with other clinical leaders is responsible for ensuring that the hand-off communication tools will be fully implemented.

The health care professionals must have awareness and desire for change. Individuals change when they experience urgency of the needs (Chanmpoux, 2011). It is critical for them to create urgency by sharing concerns related to poor communication among health care professionals to support that change must occur in the organization. To achieve the improvement in health care, the health care professionals must be fully involved in the process and use established evidence-based practices to support the practice. They must be committed to implementing evidence-based care to ensure that changes will be initiated toward the right path.

Extensive amount of education, meetings, and collaboration will be necessary for any actions to make changes. It is necessary to ensure that a variety of time and schedule are offered to complete the education so that some participants will be able to choose the best time from the

choices. Conducting and providing education and the materials can be a significant challenge for implementers. It is clear that nobody is alike and each of participants has different preferences. Some of the participants are comfortable with the new changes, and the others are easily terrified. It is essential to assess the needs of each individual to provide the education and take the time to complete the education to meet their needs. It is crucially important that the health care professionals support the program by reminding them that they are part of the TeamSTEPPS team and that the training is in the best interests of patient safety. Also, having a clear vision with strong leadership skills will be a key to the success for conductors. Transparency and flexibility during the implementation is crucial to guide the participants.

Developing attitudes that promote team building is essential to have a high morale and high accomplishment team. Especially the attitudes will be more important when the health care professionals have to pick up the roles/tasks. Employees desire a voice. They would like to voice their opinions and concerns. Everyone must create an environment that the others will feel free to voice their concerns and feel less stress to cover the roles/tasks. People seek for guidance and direction from a leader. All employees may need extra help in adopting any changes. The lack of an adequate education/training may lead the employees to fall behind. It is clear that well-structured plans can make all the difference to the quality of the health care organization. It is essential to involve all healthcare professionals in a project plan. However, often times it is not possible to work with every single person who would be involved in the project and keep them engaged. The important key to success is how they are going to identify key employees who are willing to be advocate for the others and keep them in the loop of communication during the project plan. The act of caring patients and delivering treatment plans is dependent on a whole

team of people. To implement evidence into practice, teamwork and leadership skills are essential.

Evaluation Plan

Assessment, Diagnosis, Planning, Implementation, and Evaluation, known as nursing process, are crucial components for any actions. Evaluation is very important aspect of the process because conclusions drawn from the evaluation determine whether the implementation of the bullying prevention program should be discontinued, continued, or modified (Berman & Snyder, 2012). Efforts to initiate the project evaluation are essential to show the extent of progress toward achievement of goals and enable the project implementation team to recognize the lack of knowledge regarding the effectiveness of the program. The four stages of evaluation: formative evaluation, process evaluation, impact evaluation, and outcome evaluation (Friis & Sellers, 2009) will be used to continuously evaluate the project implementation process.

Giving evaluation may be challenging because some participants/health care professionals may react defensively to the feedback. Setting standards will help the key employees to assess whether the set of evaluation activities are well designed and working to participants' potential (Kettner, Moroney, & Martin, 2013). It is essential to engage them in the evaluation of a program that requires changes. In an evaluation period, it might be a challenge to see significant improvements as the outcomes of the project implementation because improvements are to be recognized by the cumulative effects. However, the implementation might be considered successful if some improvements are noticed during processes. Continuous evaluation and progress reports will be required monthly to keep the process on a right path. Monthly progress reports will be expected to have the performance management cycles. The use of the performance management cycles will help quality improvement teams to set clear goals, to

achieve the strategic goals, and to measure the process of the implementation of changes in a specific time period. It is vital to measure whether the initiated changes have led to the sustainable improvement or not.

As the larger scale evaluation method, the HCAHPS may be used. HCAHPS is a standardized measuring tool for collecting or publishing patients' perspective of care at acute care facilities that would enable valid comparisons to be made across all health care organizations (Huppertz & Carlson, 2010). The data gathered by the HCAHPS are available on the CMS's Hospital Compare website. The data may be also evaluated before and after implementation of the communication tools to measure the health care providers' communication skills and patients' satisfaction. To get the most consistent and accurate HCAHPS data, the outcomes should be reviewed quarterly or yearly. Analyzing the data monthly is not recommended because several happy or unhappy patients in the period may skew the outcomes of HCAHPS.

Sustainment Plan

Building a base for the long-term growth and success is essential to promote quality of care and services. Maintaining and continuing the developed plans would be a crucial piece of the puzzle to develop the basement. An effective sustainment plan should account for identification of opportunities for further improvements and sustainment of positive changes (AHRQ, n.d.). Providing two different types of feedbacks, positive feedback and constructive feedback is very important to promote professional personal growth of health care professionals during a sustainment phase. Raising awareness by providing comprehensive, constructive feedback early on can bring about change in performance (Duffy, 2013). Providing constant feedbacks is not an easy task. It is essential for the key employees to find mentors to provide the

regular feedback to ensure that all health care professionals are meeting a goal. It is very important to celebrate ideas, achievement, and successes of implementation of this project to motivate the health care professionals. They need to see how the implementation changes the quality of care. The outcomes must be shared openly and honestly. No matter what the outcomes are, the conductors must focus on emphasizing on learning in a non-punitive environment.

Strength and Limitations

The strength of this project is that the author took environment and culture of the department and each profession into consideration to develop the process map (see Figure 2) and the communication tools (see Figures 3-8). I had spent time with each health care profession over 6 months to understand their roles and needs in the practice. The subject experts provided positive feedback on the process map and communication tools.

The limitation of this project is that it was developed without full institutional support. I was not able to obtain anonymous surveys from all health care professionals that may be involved in this project. I developed the process map and communication tools with limited number of health care professionals whom the author had worked with during the practicum hours. Another limitation is that the author will not be able to fully participate to the implementation, evaluation, and sustainment phases of this project. However, I will be available for any consultations.

Summary

Applying culture of the TeamSTEPPS approach will provide guidance for the health care professionals and allow them to voice their concerns and needs. All health care professionals should be involved in the planning. Creating well-thought implementation, evaluation, and sustaining plans with the health care professionals will strengthen teamwork and make the plans

more successful. When a gap between what they are currently doing and what they want to do is filled, evidence-based practices will be effectively implemented within the team. It is essential to have leadership skills to successfully implement evidence into practice and to understand teamwork is important.



Figure 1. Components and influence of interdisciplinary collaboration.

Table 1
Patient Survey Results of HCAHPS

HCAHPS question	A mid-sized hospital in DFW	Texas average
Nurses "Always" communicated well	73%	79%
Doctors "Always" communicated well	74%	83%
"Always" received help as soon as patient wanted	58%	69%
Pain was "Always" well controlled	66%	73%
Explained about medications before administration	60%	65%
Discharge education was provided	83%	84%
Patients would recommend the hospital	67%	73%

Note. HCAHPS = Hospital Consumer Assessment of Healthcare Providers and Systems;
 Adopted from U.S. Department of Health & Human Services. Retrieved from
www.hospitalcompare.hhs.gov/

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Appendix A: Assessment Plan

The Purpose Statement

The purpose of this assessment plan is to identify the needs for promoting quality care and to determine whether sufficient resources are available to promote effective communication among healthcare professionals.

HCAHPS Result

A website called Hospital Compare, developed by Center for Medicare and Medicaid Services (CMS) shows there are significant issues with patients' satisfaction in the healthcare organization to compare with one of the National average (see Table 1). Based on the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) result, the issues related to communication among healthcare professionals and patients are one of the major reasons of poor patient satisfaction in the healthcare organization. This result indicates the needs for promoting quality care in the organization.

Readiness Assessment

TeamSTEPPS-Teamwork Attitudes Questionnaire and TeamSTEPPS-teamwork Perceptions Questionnaire developed by the U.S. Department of Defense could be used anonymously to measure individual attitudes related to vital components of teamwork that is important in TeamSTEPPS implementation and individual perceptions of group level team skills and behaviors. The project author was not able to conduct this assessment to develop an implementation plan because of the lack of institutional support. However, measuring perceptions and attitudes of teamwork in the healthcare organization prior to the implementation of the project may be beneficial because the data can be used to assess specific needs within the department (AHRQ, n.d.). This assessment process could be used when the project leader

recognizes the individual's attitudes toward the issues related to teamwork and communication in the department are very poor.

Site Assessment

Conducting a site assessment is required to identify barriers to implementing change and to decide whether resources are in place to successfully support the initiatives (AHRQ, n.d.). To identify common practice problems and issues related to poor communication this project author has followed nurses, a nurse practitioner, a secretary, a physician, a social worker, and a nurse assistant for over six months. The author discussed with the healthcare professionals issues related to communication and teamwork and evaluated current approaches and/or tools that they had been using to promote effective communication. All healthcare professionals whom this author conversed with were ambivalent about change. They played vital roles in promoting quality care and addressed the importance of change for higher quality of care. However, the unique environment and situations make communication among them more challenging and require using effective communication techniques. This author encouraged the healthcare professionals to evaluate the pros and cons of using hand-off communication process maps and hand-off communication tools and to identify and promote new positive outcome expectations. The healthcare professionals were engaged in determining how this intervention contributed to change. They were very supportive with the use of the hand-off communication process maps and tools. This author partnered with each healthcare professional to carefully identify what needed to be included in the hand-off communication process maps and tools.

Appendix B: Implementation Plan

Purpose Statement

The purpose of this implementation plan is to provide a model for launching hand-off communications methods and tools to promote communication among healthcare professionals.

Build a Project Team

To ensure the project is successful, a well-qualified multidisciplinary team must work together to meet the goal of the project. The project team will be made up of healthcare professionals. The leader in this project must have a clear vision and inspire the team members to set higher goals. The leader with the vision has clear idea of where to direct the project and a firm grasp on what success looks like and how to achieve it. Having a clear vision may not be enough to guide others into the right path. The leaders must also share the vision and act upon it. The leader should demonstrate integrity, dedication, openness, creativity, fairness, and magnanimity. These qualities are vital to shape the team members' responses to changes as well as to the acceptance of new approaches such as new evidence-based practices.

At least one member from each healthcare profession in a department must be selected and the clinical champions should be knowledgeable of team strategies. Peer nomination and self-nomination can be used to select the clinical champions. The followings are key roles and responsibilities of the team. A project implementation team may modify this plan.

Project Team Member	Name	Responsibilities
Hospital (Department) Project Leader		<ul style="list-style-type: none"> • Provide oversight for the project • Recruit, organize, and facilitate a project team • Support the team by cultivating teamwork and ensuring engagement from all healthcare professions. • Actively participate in team meetings and presentations related to the project • Responsible for continued success <ul style="list-style-type: none"> ○ Evaluation plan ○ Sustainment plan
Clinical Champion (Key Members)	Nurse: Physician: NP/PA: CNA: Unit Secretary: Social Worker:	<ul style="list-style-type: none"> • Responsible for maintaining integrity of the project • Actively participate in team meetings and presentations related to the project • Involve in adapting and developing project materials based on status • Ensure best practices are deployed by the team • Engage and advocate for the project implementation with other members • Educate peers about the project and provide continuous support • Monitor and troubleshoot implementation of the project • Cultivate positive relationship with frontline staff • Report to the project leader about the status of the project
Front-line Staff		<ul style="list-style-type: none"> • Implement the project in the direct patient care <ul style="list-style-type: none"> ○ Use of the hand-off communication process map ○ Use of the hand-off communication tools • Provide feedback to a clinical champion about what works and does not work in the clinical setting
Subject Matter Expert		<ul style="list-style-type: none"> • Provide guidance to the team if necessary

Engage the Team

Team engagement is a crucial element in this project implementation. The project leader needs to inspire clinical champions by using effective methodologies so that they can consistently commit to engagement in the project. The leader needs to be able to lead and manage the team simultaneously to guide transformations. The followings are the methodologies:

Involve the Team Members

A monthly meeting must be scheduled to keep the team members in the loop. The clinical champions need to be in the know. The plans must be shared consistently. Also, the leader needs to know that the clinical champions understand the process of project implementation and how it went. Health care professionals work 24 hours seven days per week. It can be a challenge to offer meetings that are suitable to the members' schedule. Conducting online meetings could be one of the choices to decrease this issue. The online meetings could be beneficial because they can be recorded and archived for the members who missed the meetings. However, in-person meetings must be conducted once a month to have a deeper sense of who the team members are and understand their personalities.

Partner with the Team Members

No matter how effective the plan to initiate changes is if team members are not fully involved constantly, it will never be successful. Everyone has different beliefs. Within the teams, it is critical to make sure that there is always room to improve and a need for each team member's input into the plan. The leaders have to believe that the team members always have definite value to add for improvement. Also, detailed goals and objectives must be provided to

the clinical champions and the goals must be consistently measured so that clinical champions can make improvements.

Identify Barriers

Most expectations for the failure of implementation of this project fall into several categories: 1) employees are resistant to change, 2) inadequate training and support is provided prior and after the implementation, and 3) poor leadership skills are demonstrated. Resistance to changes can be significant for many people because embracing change takes time and effort that the participants may not want to invest and taking time on something new largely means giving up something else that is familiar, comfortable, and predictable for them (Bruckman, 2008). It is crucial for the leader to use transformational leadership skills to influence the other members to join in on the common cause. Getting them mentally prepared for the training is another key to be successful in the implementation. It is a combination of selling the benefits of the new system and firmly announcing that the training is necessary to improve quality of care.

Training

The train the trainer model for clinical skills development has proven to be the most successful model to increase level of satisfaction among the users (Doyle, Gallagher, Bell, Rochford, Roynane, 2008). The leader needs to be aware that creating a team that has the responsibility to train and support the rest of the staff would be the best approach to promote learning for all front-line staff. Conducting and providing trainings can be a significant challenge. It is clear that nobody is alike and each person has different skills. Some of them are comfortable with the new changes, and the others are easily terrified. It is essential to assess the needs of each individual to provide the training and take the time to complete the trainings to meet each individual's needs.

Training Plans

In order to plan an effective training the followings must be identified: 1) which healthcare professional needs training on what knowledge and by when, 2) when the training session will be offered, 3) how long each session will last, 4) where the session will be offered, 5) what teaching methodologies will be used to train, and 6) when and how refresher trainings will be offered. The sample plan, which is adapted from a TeamSTEPPS approach, is listed below. A project implementation team may modify this plan.

Healthcare Profession	Clinical Champion	Date/Time	Location	Training Content	Teaching Methods
Nurse				<ul style="list-style-type: none"> • Clarify the purpose of the project • Share the number of transitions of care it may occur in the department • Show examples of how communication may lead to medical errors • Show examples of effective hand of communication • Review Process map (Figure 2) • Review Hand-off-Communication tool A, B, C, D, & E 	<ul style="list-style-type: none"> • PowerPoint presentation • Role Playing
Physician				<ul style="list-style-type: none"> • Clarify the purpose of the project • Share the number of transitions of care it may occur in the department • Show examples of how communication may lead to medical errors • Show examples of 	<ul style="list-style-type: none"> • PowerPoint presentation • Role Playing

				effective hand of communication <ul style="list-style-type: none"> • Review Process map (Figure 2) • Review Hand-off-Communication tool C, D, E, & F 	
NP/PA				<ul style="list-style-type: none"> • Clarify the purpose of the project • Share the number of transitions of care it may occur in the department • Show examples of how communication may lead to medical errors • Show examples of effective hand of communication • Review Process map (Figure 2) • Review Hand-off-Communication tool C, D, E, & F 	<ul style="list-style-type: none"> • PowerPoint presentation • Role Playing
CNA				<ul style="list-style-type: none"> • Clarify the purpose of the project • Share the number of transitions of care it may occur in the department • Show examples of how communication may lead to medical errors • Show examples of effective hand of communication • Review Process map (Figure 2) • Review Hand-off-Communication tool B 	<ul style="list-style-type: none"> • PowerPoint presentation • Role Playing
Unit Secretary				<ul style="list-style-type: none"> • Clarify the purpose of the project 	<ul style="list-style-type: none"> • PowerPoint presentation

				<ul style="list-style-type: none"> • Share the number of transitions of care it may occur in the department • Show examples of how communication may lead to medical errors • Show examples of effective hand of communication • Review Process map (Figure 2) • Review Hand-off-Communication tool A 	<ul style="list-style-type: none"> • Role Playing
Social Worker				<ul style="list-style-type: none"> • Clarify the purpose of the project • Share the number of transitions of care it may occur in the department • Show examples of how communication may lead to medical errors • Show examples of effective hand of communication • Review Process map (Figure 2) • Review Hand-off-Communication tool F 	<ul style="list-style-type: none"> • PowerPoint presentation • Role Playing

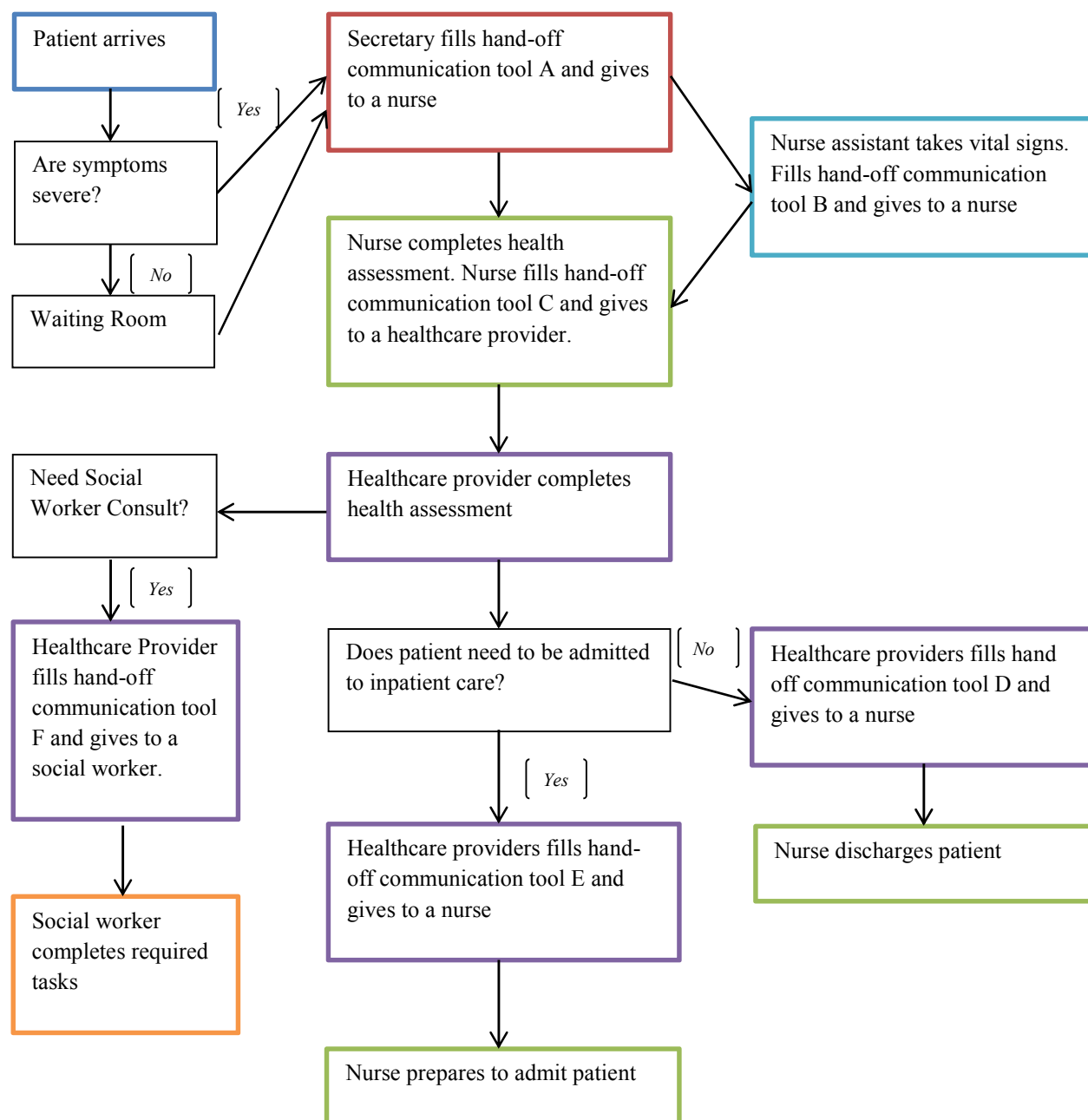
Note: Adapted from Agency for Healthcare Research and Quality. (n.d.). “About TeamSTEPPS.” Retrieved from http://teamstepps.ahrq.gov/about-2cl_3.htm

Quality Improvement Process

Once all front-line staff completes the training, the project will be implemented in the actual clinical setting. Even though it is expected to not have everyone on board at the beginning, a project team is likely to face challenges when all front-line staff fails to be on board with the

change. The project implementation team will need to consistently show them how the change will promote the quality of care.

The hand-off process map is included in Figure 2. During the process of this development, the environment and culture of the department were taken into consideration. This map may be used to serve for the healthcare professionals as the basic foundation of the hand-off communication process. Also, it can be used as an instrument to educate new professionals and other employees and a monitoring tool in evaluating the information transferred. A color code was used to display a role of each healthcare professional in this process. The hand-off communication tools A through F that may be used to promote effective communication among healthcare professionals are included in this plan.



Note: This Process Map is Developed based on a Behavioral health department in a Mid-Size Healthcare Organization. Blue: Patient, Red: Secretary, Light Blue: Nurse Assistant, Purple: Healthcare Provider, Light Green: Nurse, and Orange: Social Worker.

Secretary to Nurse Hand-off Communication Tool (A)

Patient	Name	Age	Gender
Arrival Time			
Reason for Visit			
Severity	Stable or Unstable		

Note: Example of a Hand-off Communication Tool from Secretary to Nurse.

Nurse Assistant to Nurse Hand-off Communication Tool (B)

Patient Name					
Vital Signs	Temp	Pulse	B/P	RR	O2
Concerns					
Severity	<div style="display: flex; justify-content: space-around; align-items: center;"> Stable or Unstable </div>				

Note: Example of a Hand-off Communication Tool from Nurse Assistant to Nurse.

Nurse to Healthcare Provider Hand-off Communication Tool (C)			
Patient	Name	Age	Gender
Reason for Visit			
Severity	Stable or Unstable		
Assessment Findings			
Medication List			
Concerns			

Note: Example of a Hand-off Communication Tool from Nurse to Healthcare Provider.

Healthcare Provider to Nurse Discharge Hand-off Communication Tool (D)			
Patient	Name	Age	Gender
Medical Diagnosis			
Assessment Findings			
New Medication List			
Plans (Education & Next Appointment)			

Note: Example of a Discharge Hand-off Communication Tool from Healthcare Provider to Nurse.

Healthcare Provider to Nurse Admission Hand-off Communication Tool (E)			
Patient	Name		Age
Gender			
Medical Diagnosis			
Assessment Findings			
New Medication List			
Inpatient Orders			

Note: Example of an Admission Hand-off Communication Tool from Healthcare Provider to Nurse.

Healthcare Provider to Social Worker Hand-off Communication Tool (F)			
Patient	Name	Age	Gender
Medical Diagnosis			
Concerns			

Note: Example of a Hand-off Communication Tool from Healthcare Provider to Social Worker.

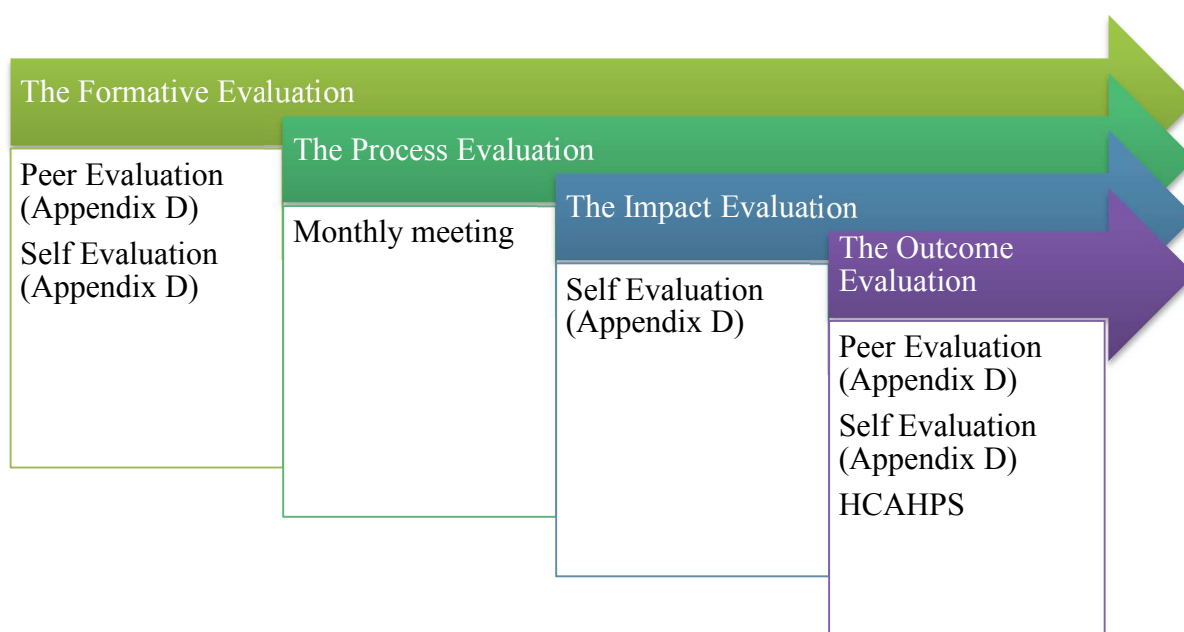
Appendix C: Evaluation Plan

The Purpose Statement

The purpose of the evaluation plan is to identify areas for improvement and to demonstrate the program success or progress.

The Four Stages of Evaluation

The four stages of evaluation formative evaluation, process evaluation, impact evaluation, and outcome evaluation (Friis & Sellers, 2009) will be used to continuously evaluate the project implementation process.



The Formative Evaluation

The formative evaluation process provides the implementation team members necessary information to modify the interventions while they are still implementing the prevention interventions. It is vital to use multiple different evaluation techniques to evaluate during the process. The clinical champions will use observational measures throughout the process (peer-evaluation) and all front-line healthcare professionals will complete a self-evaluation within one

month. Simple forms and checklists will be used to evaluate the effectiveness of the project interventions. The forms are included in Appendix D.

The Process Evaluation

The process evaluation is crucial to analyze how well the interventions are being implemented. Involvement of all healthcare professionals in this evaluation is essential. They must be involved consistently in the evaluation process. Collaborating with all healthcare professionals to promote the use of hand-off communication tools is essential and the efforts must be consistently evaluated. Monthly meetings to discuss the effectiveness of the intervention with them are necessary for this evaluation.

The Impact Evaluation

The impact evaluation is to determine whether the interventions create changes in the target population's knowledge, attitudes, beliefs, or behaviors (Friis & Sellers, 2009). The achievement of the intended impact in the healthcare professionals must be monitored closely to ascertain that the interventions are effective. Questionnaires and observation by the project implementation team will be used to evaluate this process. This evaluation should be completed between two and four months after the implementation of the project. The observational measure may include checklists of behaviors of the healthcare professionals. The forms are included in Appendix D.

The Outcome Evaluation

The outcome evaluation focuses more on questions that assess what was the outcome of the interventions were to healthcare professionals and how much of a difference the interventions made for them at the end of the program. The methods that will be used in this evaluation are the same as other evaluation methods to analyze any changes in knowledge, attitudes, skills, and/or

behaviors of them. This evaluation should be completed between four and six months after the implementation. The HCAHPS may be added to measure outcomes of patients' satisfaction as the result of the project. Also, it is vital to evaluate any system changes because of the interventions.

Appendix D: Evaluation Tools

Formative Self-Evaluation

Evaluate how well your group performed on the following questions. Circle one number as your response to each question (#1-6) using the following scale.

1: Strongly Disagree	2: Disagree	3: Average	4: Agree	5: Strongly Agree
<hr/>				
1. The process map is useful in educating new employees the process of hand-off communication.	1	2	3	4 5
2. The hand-off communication tools are helpful during hand-off.	1	2	3	4 5
3. I always use the hand-off communication tools.	1	2	3	4 5
4. I encourage others to use the hand-off communication tools.	1	2	3	4 5
5. I received an adequate training.	1	2	3	4 5

If you answer Strongly agree or Disagree, please explain the reason of the choice.

What information was helpful in caring for your patients during the hand-off?

What information was missing during hand-off? What information needs to be included during the hand-off?

Formative Peer-Evaluation

Evaluate how well your group performed on the following questions. Circle one number as your response to each question (#1-6) using the following scale.

1: Strongly Disagree	2: Disagree	3: Average	4: Agree	5: Strongly Agree	
1. The attitude of front-line healthcare professions toward the change is positive.	1	2	3	4	5
2. The front-line healthcare professions always use hand-off communication tools.	1	2	3	4	5
3. The hand-off communication tools are always available at the department.	1	2	3	4	5

If you answer Strongly agree or Disagree, please explain the reason of the choice.

Impact Evaluation

Evaluate how well your group performed on the following questions. Circle one number as your response to each question (#1-6) using the following scale.

1: Strongly Disagree	2: Disagree	3: Average	4: Agree	5: Strongly Agree
1. Staff are held accountable for their action.	1 2 3 4 5			
2. Feedback between staff is delivered in a way that promotes a positive culture and future change.	1 2 3 4 5			
3. My unit has a clear goal and operates at a high level of efficiency.	1 2 3 4 5			
4. My clinical champion provides opportunities to discuss the unit's performance.	1 2 3 4 5			
5. Staff exchange relevant information as it becomes available by using the hand-off communication tools	1 2 3 4 5			

If you answer Strongly agree or Disagree, please explain the reason of the choice.

Outcome Self-Evaluation

Evaluate how well your group performed on the following questions. Circle one number as your response to each question (#1-6) using the following scale.

1: Strongly Disagree	2: Disagree	3: Average	4: Agree	5: Strongly Agree
1. I always use the hand-off communication tools.	1 2 3 4 5			
2. The hand-off tools improve the quality and thoroughness of information communicated to you during hand-off?	1 2 3 4 5			
3. The hand-off procedure enhanced your confidence in providing safe patient care?	1 2 3 4 5			

If you answer Strongly agree or Disagree, please explain the reason of the choice.

Outcome Peer-Evaluation

Evaluate how well your group performed on the following questions. Circle one number as your response to each question (#1-6) using the following scale.

1: Strongly Disagree	2: Disagree	3: Average	4: Agree	5: Strongly Agree
1. The attitude of front-line healthcare professions toward the change is always positive.			1 2 3 4 5	
2. The front-line healthcare professions always use hand-off communication tools.			1 2 3 4 5	
3. The hand-off communication tools are always available at the department.			1 2 3 4 5	

If you answer Strongly agree or Disagree, please explain the reason of the choice.

Appendix E: Sustainment Plan

The Purpose Statement

An effective sustainment plan should account for identification of opportunities for further improvements and sustainment of positive changes (AHRQ, n.d.). The AHRQ recommends adding the following steps in the sustainment plan: 1) providing regular feedback and coaching throughout the project and 2) celebrating success.

Provide Regular Feedback and Coaching

A team leader and clinical champions need to develop and use a coaching and feedback plan that allows for sufficient observation and feedback opportunities (AHRQ). Whether the team delivers positive or constructive feedback, the feedback should be specific, frequent, and timely.

Timely Feedback

It is essential for the front-line healthcare professionals to be able to easily connect the feedback with their actions. The effectiveness of the feedback will be more likely to decrease if clinical champions wait to address the performance issue until a monthly meeting. The feedback must be provided consistently in a timely manner.

Specific Feedback

Effective feedback is always specific. The implementation team members should avoid using immeasurable terminology like “good” or “bad” when they give feedback. Constructive feedback is not criticism. It is vital to limit the feedback to the actions and outcomes, not the person.






Follow Up

The team members must provide a subsequent follow up discussion with the front-line healthcare professionals if they give either positive or constructive feedback. The follow up sessions must be planned before the feedback is given. The follow up discussion can be short and simple.

Celebrating Success

Motivated front-line staff members make a commitment to succeed. Recognizing effort and celebrating with a team will keep the morale high on the team when they achieve success. Monthly meetings may be used to thank the members routinely for the successful project and to create a positive culture that fosters future success. Rewards may need to be offered to motivate the front-line staff members for the success.

Appendix F: Project Timeline

Project Plan	Month 1	Month 2	Month 3	Month 4	Cont.
Engagement <ul style="list-style-type: none"> • First meeting: <ul style="list-style-type: none"> ○ Keep members in the loop ○ Partner with the team members ○ Identify Barriers 					
Training <ul style="list-style-type: none"> • Clarify the purpose • Share the number of transitions of care it may occur in the department • Show examples of how communication may lead to errors • Show examples of effective hand-off communication • Role playing 					
Quality Improvement Process <ul style="list-style-type: none"> • Implementation of the hand-off communication process map and tools • Manage barriers • Manage changes 					

Curriculum Vitae

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AREA of INTEREST

Quality Improvement/Management

PROFESSIONAL EXPERIENCES

Baylor All Saint Medical Center (Staffed RN)	2004–2011
Tarrant County College District (Foundation Coordinator)	2008-Present

EDUCATION

Bachelor of Science in Nursing; BSN-Midwestern State University-2004
Master of Sciences in Nursing: MSN (Education)-Walden University-2008
Doctor of Nursing Practice: DNP Student-Walden University-Expected graduation year (winter, 2014)

AFFILIATIONS

Dean's Extra Mile Award (2010)
Daisy Award (Excellence in Patient Care)

PRESENTATIONS

Mosby Nursing Faculty Conference (2012): Electronic Charting System in Nursing Education
Summer Institute 2013: "Limited English Proficiency and Patient Safety and Satisfaction: Success Strategies for Nursing Students and Practicing Nurses"

PROFESSIONAL MEMBERSHIPS

National League for Nursing